

AMENDMENTS

IN THE CLAIMS:

Please cancel claims 28-50 without prejudice or disclaimer.

1. (Original) A semiconductor device, comprising:
a ferroelectric capacitor comprising:
a conductive lower electrode material formed above a semiconductor body;
a ferroelectric material formed above the lower electrode material, the ferroelectric material comprising unit cells individually comprising an elongated dimension, wherein a percentage of the unit cells are oriented with elongated dimensions substantially normal to a generally planar upper surface of the semiconductor body, and wherein the percentage is about 50% or more and about 90% or less; and
a conductive upper electrode material formed above the ferroelectric material.
2. (Original) The device of claim 1, wherein the ferroelectric material comprises PZT.
3. (Original) The device of claim 2, wherein the percentage is about 60% or more and about 70% or less.
4. (Original) The device of claim 2, wherein the lower electrode material comprises Iridium.
5. (Original) The device of claim 2, wherein the percentage is about 50% or more and about 70% or less.

6. (Original) The device of claim 2, wherein the unit cells of the ferroelectric material have a tetragonal distortion of about 1% or more and about 4% or less.

7. (Original) The device of claim 2, wherein the PZT ferroelectric material comprises a Zr content of about 0-52%.

8. (Original) The device of claim 7, wherein the PZT ferroelectric material comprises a Zr content of about 10-40%.

9. (Original) The device of claim 1, wherein the percentage is about 60% or more and about 70% or less.

10. (Original) The device of claim 9, wherein the lower electrode material comprises Iridium.

11. (Original) The device of claim 9, wherein the percentage is about 50% or more and about 70% or less.

12. (Original) The device of claim 1, wherein the lower electrode material comprises Iridium.

13. (Original) The device of claim 1, wherein the percentage is about 50% or more and about 70% or less.

14. (Original) The device of claim 1, wherein the unit cells of the ferroelectric material have a tetragonal distortion of about 1% or more and about 4 % or less.

15. (Original) A ferroelectric capacitor comprising:
a conductive lower electrode material formed above the semiconductor body;

a ferroelectric material formed above the lower electrode material, the ferroelectric material comprising unit cells individually comprising an elongated dimension; and

a conductive upper electrode material formed above the ferroelectric material; wherein the upper and lower electrodes are spaced from one another along an axis, wherein a percentage of the unit cells in the ferroelectric material are oriented with elongated dimensions substantially parallel to the axis, and wherein the percentage is about 50% or more and about 90% or less.

16. (Original) The ferroelectric capacitor of claim 15, wherein the ferroelectric material comprises PZT.

17. (Original) The ferroelectric capacitor of claim 16, wherein the percentage is about 60% or more and about 70% or less.

18. (Original) The ferroelectric capacitor of claim 16, wherein the lower electrode material comprises Iridium.

19. (Original) The ferroelectric capacitor of claim 16, wherein the percentage is about 50% or more and about 70% or less.

20. (Original) The ferroelectric capacitor of claim 16, wherein the unit cells of the ferroelectric material have a tetragonal distortion of about 1% or more and about 4% or less.

21. (Original) The ferroelectric capacitor of claim 16, wherein the PZT ferroelectric material comprises a Zr content of about 0-52%.

22. (Original) The ferroelectric capacitor of claim 16, wherein the PZT ferroelectric material comprises a Zr content of about 10-40%.
23. (Original) The ferroelectric capacitor of claim 15, wherein the percentage is about 60% or more and about 70% or less.
24. (Original) The ferroelectric capacitor of claim 23, wherein the lower electrode material comprises Iridium.
25. (Original) The ferroelectric capacitor of claim 23, wherein the percentage is about 50% or more and about 70% or less.
26. (Original) The ferroelectric capacitor of claim 15, wherein the lower electrode material comprises Iridium.
27. (Original) The ferroelectric capacitor of claim 15, wherein the percentage is about 50% or more and about 70% or less.